Claims:

1. A composition comprising human antibodies that bind to human tumor necrosis factor alpha.

2. The composition of claim 1 wherein the antibodies comprise antibodies of the IgM type.

3. The composition of claim 1 wherein the antibodies comprise antibodies of the IgG type.

4. The composition of claim 1 in a pharmaceutically acceptable carrier.

5. The composition of claim 1 wherein the antibodies are suitable for intravenous administration.

6. The composition of claim 1 wherein the antibodies also bind to mouse tumor necrosis factor alpha.

7. The composition of claim 1 wherein the antibodies can bind to non-neutralizing epitopes of tumor necrosis factor alpha.

8. The composition of claim 1 wherein the antibodies are specific for tumor necrosis factor alpha.

9. The composition of claim 1 wherein the antibodies bind to tumor necrosis factor alpha on human cell surfaces.

10. The composition of claim 1 wherein the antibodies inhibit secretion of tumor necrosis factor alpha.

11. The composition of claim 1 wherein the antibody is expressed from the cell line designated F78-1A10-B5 (ATCC Deposit CRL 11306).

12. An antibody preparation characterized by binding specifically to human TNF alpha, and having a titer comparable to three high affinity neutralizing mouse monoclonal antibodies when tested by ELISA.

13. The antibody of claim 11 having the further characteristic of binding to cell surface TNF alpha on cells selected from the group consisting of human T cells, B cells, monocytes and lymphoid or monocyte lineage cell lines of human origin.

14. The antibody of claim 11 having the further characteristic of inhibiting LPS induced TNF alpha secretion by human monocyte-like cells.